

What Is Claimed Is:

1. A method for automatically initiating an emergency braking sequence including preliminary warning braking in motor vehicles,  
wherein the achievable vehicle deceleration ( $a$ ) is determined during warning braking and the time ( $t_1$ ;  $t_1'$ ) of initiating emergency braking is varied as a function of the determined vehicle deceleration ( $a$ ).
2. The method as recited in Claim 1,  
wherein at least one wheel of the vehicle is decelerated to the slip limit during warning braking.
3. The method as recited in Claim 1,  
wherein the braking force ( $F$ ) is increased during warning braking until at least one wheel reaches the slip limit or until the braking force or a correlated state variable attains a defined maximum value ( $F_{max}$ ); and when the maximum value is attained without a wheel having reached the slip limit, a high estimated value of the attainable vehicle deceleration ( $a$ ) is used as a basis.
4. The method as recited in one of the preceding claims,  
wherein the attainable vehicle deceleration ( $a$ ) is represented by a parameter which indicates the coefficient of friction between the roadway and the tires.
5. The method as recited in Claim 4,  
wherein the coefficient of friction determined during warning braking is taken into account in controlling the braking pressure buildup when initiating emergency braking.
6. A control unit for carrying out the method as recited in one of the preceding claims,  
wherein a situation analyzer unit (10) is designed for determining a point in time ( $t_0$ ) of initiating warning braking and a later, provisional point in time ( $t_1$ ) of initiating emergency braking on the basis of the measured distance ( $D$ ) to an obstacle and the measured relative velocity ( $V_r$ ) of this obstacle, as well as on the basis of a provisional value of the vehicle deceleration ( $a$ ); an ABS/ESP control unit (12) which is designed for modulating the braking

pressure as a function of the slip conditions of the braked wheels while computing the roadway's coefficient of friction determines the coefficient of friction during warning braking and reports it to the situation analyzer unit (10); and the situation analyzer unit (10) corrects the provisionally assumed time ( $t_1$ ) of initiating emergency braking on the basis of the vehicle deceleration ( $a$ ) which is given by the determined coefficient of friction.